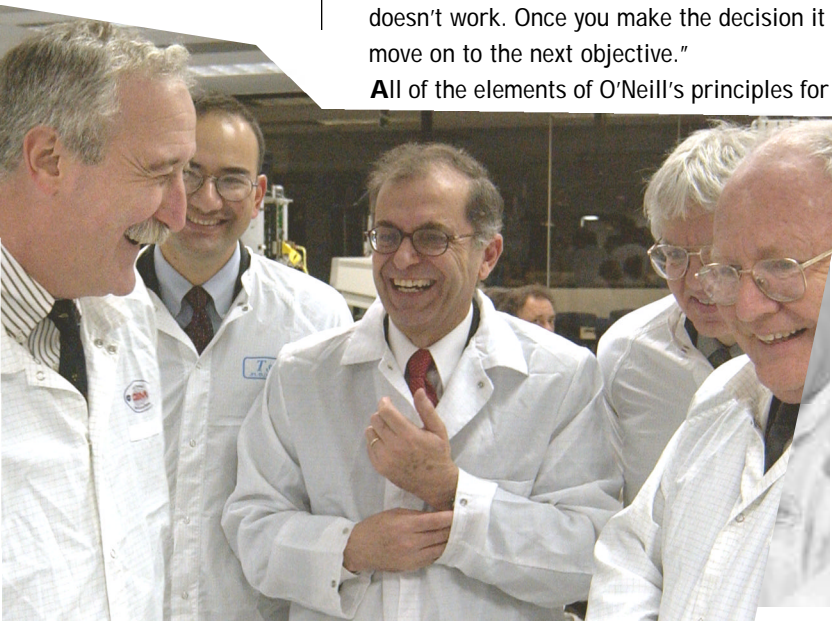


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## O'Keefe meets JPLers

By Mark Whalen

Right: new NASA Administrator Sean O'Keefe speaks to the news media following his address to employees. Below: O'Keefe, left, joins JPL Director Dr. Charles Elachi and Tom Gavin (right), Associate Director, Flight Projects and Mission Success, in viewing X2000 hardware.



JPL welcomed newly appointed NASA Administrator Sean O'Keefe on Jan. 30 as a standing-room crowd packed von Kármán Auditorium.

O'Keefe, sworn in as NASA's 10th administrator Dec. 21, came to the agency from the Office of Management and Budget, where he served as deputy director since March 2001. Previously, he was a professor of business and government policy and Syracuse University and served as Secretary of the Navy.

O'Keefe presented his vision of the best way to continue NASA's charter and missions of exploration and discovery, and in managing and prioritizing the agency's resources. He noted the importance of communicating NASA's mission and achievements to the public, especially as they pertain to advancement of society. He also emphasized the importance of NASA's collaboration with other agencies, and the need to continue collaborative efforts with international partners.

To help NASA achieve its goals, O'Keefe spoke at length of management principles advocated by Paul O'Neill, secretary of the treasury and O'Keefe's friend and mentor, on how to emulate truly "great organizations." The three-tiered set of principles consists of the following:

- People are to treat each other professionally. "There is an expectation and trust in the capacity of individuals to perform what it is we've asked them to do," O'Keefe said.
- Employees need to be provided the resources required to complete the task. O'Keefe cautioned, though, that he has never been told, 'No thank you, I already have enough' resources. "In this context, we must be careful in how we measure and analyze what it is we think is required to carry out the task we're handed."
- People need to see a result, impact or consequence of the work done; O'Keefe termed it "Someone noticed." This can be positive or negative, success or nonsuccess. "This agency is about doing the type of exploration and attempt at discovery that if we didn't do it, it wouldn't be done. That comes with enormous risks. Sometimes you may pursue something that has tremendous payoffs—far beyond expectations. In other cases, it just flat doesn't work. Once you make the decision it doesn't work, you move on to the next objective."

All of the elements of O'Neill's principles for great organizations

"are dominantly resonant in this agency," O'Keefe said. "In every NASA center I've visited, the enthusiasm and energy for all three of these dimensions is very clear. There's lots of professionalism and pride in this important portfolio

we've been handed. But that's not the challenge. It is more trying to emphasize these three elements to the highest degree so that NASA will be looked on as the 'poster' organization that has achieved this.

"My hope over the next several months is to be able to develop what we think ought to be the science and technology priorities, articulated in a way that we can express it in a public context—not only for exploration and discovery but also for the betterment of humankind," he said. "It's my fondest aspiration that in a year or two from now, the president says, 'Let me tell you what NASA's doing—here's a benefit we have asked them to do for our advancement as Americans and for humankind at large.'"

JPL, O'Keefe said, along with the other centers, "will be a very integral player in how we make those priority choices. Charles Elachi is an extraordinary visionary in terms of what JPL can



Photos by Bob Brown / JPL Photolab

provide, and you are certainly well led here. I think the continued dialogue here as well as throughout the organization will help us come to those answers."

O'Keefe noted that one of his greatest challenges is "reintroducing the proposition that there is risk. There must be an understanding that if there is an intolerance of risk, particularly with a charter as broad as NASA's, when failure or some lack of success occurs, you don't introduce risk aversion."

O'Keefe noted the importance of NASA's collaboration with other agencies, citing launch vehicles as a good example of work between the agency and larger national security elements. "Not only is it a good idea, but as public servants we have a responsibility to do that, rather than funding and providing resources for lots of duplicative effort."

He also recognized NASA's need to continue collaborative efforts with international partners. "The era of competition is what we emerged from in the Cold War era," he noted. "Many Americans consider NASA's landing a man on moon its greatest accomplishment, but that came from a competitive Cold War mindset. That's an atmosphere we don't want to return to." He cited the International Space Station, with the former enemy nations today engaged in the same science and technology pursuits. "That's a remarkable achievement. This (would have been) unimaginable at the height of the Cold War. That's something we, as Americans, all ought to be proud of, and a good example of why we should pursue continued cooperation."

O'Keefe also mentioned the importance of communicating NASA's mission to the public. "In everything we do, we should continue to think in terms of translating the work we do to the public, in ways that mean something to people outside the realm of what we do, in ways that have specific meaning for our lives. This is a benefit to the American public we serve."

On a personal front, the administrator's self-effacing style came through when he relayed with humor how the news of his new job as NASA chief elicited mixed reaction among his three children. Without a word, his 15-year-old daughter's "eyebrows launched straight into her hairline, as if to express complete incredulosity at the notion—"You?!" The reaction of his 12-year-old son Jonathan was more candid: "'Gee, Dad, that's great. But I thought you had to be really smart to be in that job.'" His youngest son, Kevin, told his father, "You have to admit you're not a rocket scientist."

Indeed, O'Keefe confessed more than once to his lack of scientific and technical prowess. "I won't try to be something I'm never going to be—a scientist or technologist," he said. "But I hope to live up to this entrusted capacity the president has bestowed [on me] for what is really the crown jewel of what we do throughout the federal establishment."



## News Briefs



Matt Landano

### Landano named OSMS director

MATT LANDANO has been appointed the new director for the Office of Safety and Mission Success, effective March 11.

Landano has an extensive and varied background in mission design, development, management and flight operations. He will succeed DR. HARRY DETWEILER, who will be retiring after more than 30 years of distinguished service to JPL, including four years as director for OSMS.

He is currently the Deputy Director for the Planetary Flight Projects Directorate and Project Manager of the 2001 Mars Odyssey mission. He came to JPL in 1969 as part of the Viking Orbiter System Design/Development Team and since then has contributed in various capacities to the Voyager, Galileo, Cassini, Deep Space 1, Stardust, Deep Impact, Genesis and Galaxy Evolution Explorer missions.

Landano led the development of the JPL Design, Verification/Validation and Operations Principles for Flight Systems, which sets the standards for all development projects at JPL. He has a NASA Exceptional Achievement Medal and two NASA Outstanding Leadership Medals, and was awarded an Aviation Week Laurels Award in 1989.

### Stardust now comet-bound

JPL's comet-bound Stardust spacecraft, successfully completed a critical deep-space maneuver Jan. 18, positioning itself on a course to encounter comet Wild 2 in January 2004 and collect dust from the comet.

Stardust fired its thrusters for nearly 111 seconds, increasing the speed of the spacecraft by 2.65 meters per second (about 6 mph).

"This is the maneuver that sets us up for the bigger maneuver. It's a combination of increasing the speed of the spacecraft and at the same time putting it on the path to reach Wild 2," said ROBERT RYAN, Stardust's mission manager at JPL.

The spacecraft responded exactly as planned, said Ryan, although communication was tricky. Stardust is currently the farthest solar-powered object from the Sun, more than 395 million kilometers (245 million miles) away. The spacecraft's signal confirming it had completed the maneuver took almost 30 minutes to reach Earth.

### Caltech takes over ERC operations

Effective Monday, Jan. 28, Caltech's Campus Business and Auxiliary Services has assumed responsibility for operations of The JPL Store, previously operated by the Employees Recreation Club (ERC). JPL Human Resources, Employee Services & Recognition Group, will be responsible for employee recreational events, activities and subclubs.

During the transition period, the JPL Store will be closed through Friday, Feb. 1, except for essential services such as film processing pick-up, bus tokens and ticket purchases. The JPL Store will reopen for business, Monday, Feb. 4, at 9 a.m.

### Training schedule set for 2002

Professional Development has released its schedule of educational opportunities for the new year. Planning is underway for curricula covering such disciplines as Engineering: Software and Hardware; Mission Architect Development Program; Project Management; and Leadership and Development.

Role-based courses will continue to be offered, including those for project managers, project element managers, and cognizant engineers. Workshops for contract technical management, supervisors and section managers will also be available. Role-based courses for the task manager and section manager, as well as a workshop to improve the cost estimating skills of Lab personnel, "Cost Planning and Performance Management," are being added.

Professional Development is continually assessing the educational needs of Laboratory personnel and is currently meeting with division managers to further understand their personnel development needs. Based on some of the Laboratory's education and training requirements identified so far, Professional Development is working on courses such as: cost estimating; real-time software design and development; signal processing; optics; problem solving and decision making/conflict resolution; performance development and ECAP; and software quality assurance.

See the Education and Training website (<http://hr/et>) for the first-quarter schedule and beyond.

As the curriculum is built in various disciplines throughout the year, employees are encouraged to tell Professional Development about their educational requirements and check out the schedule on Click on the last link titled "NEW! Training Schedule" on the lower left-side of the page.

### Blood drive later this month

The next JPL/Red Cross blood drive will be held in von Kármán Auditorium on Feb. 19 from 10 a.m. to 4 p.m. and Feb. 20 from 7 a.m. to 1 p.m.

Sign-up sheets will be available prior to the blood drive at Occupational Health Services (Building 310-202), and their home page at [http://eis/medical/blood\\_form.html](http://eis/medical/blood_form.html).

If you are a last-minute sign-up, you may go directly to von Kármán Auditorium at your preferred time. Be prepared to wait a little longer if you do not have an appointment.

To change your appointment, call the Pasadena Red Cross at (626) 960-6956, ext. 224.

Occupational Health Services notes that JPL's November 2001 blood drive collected a total 180 pints of blood in two days and 540 lives will benefit from that collection.

The Red Cross is currently experiencing a critical shortage of all types of blood, and their inventory remains below desired levels.

## Special Events Calendar

### Ongoing Support Groups

Alcoholics Anonymous—Meetings are available. Call the Employee Assistance Program at ext. 4-3680 for time and location.

Codependents Anonymous—Meeting at noon every Wednesday. Call Occupational Health Services at ext. 4-3319.

Gay, Lesbian and Bisexual Support Group—Meets the first and third Fridays of the month at noon in Building 111-117. Call the Employee Assistance Program at ext. 4-3680 or Randy Herrera at ext. 3-0664.

Parent Support Group—Meets the third Thursday of the month at noon. For location, call the Employee Assistance Program at ext. 4-3680.

Senior Caregivers Support Group—Meets the first Thursday of the month at noon. For location, call the Employee Assistance Program at ext. 4-3680.

### Monday, February 4

Caltech Ballroom Dance Club—A Viennese waltz class will be offered by a professional instructor at 7:30 p.m. in Winnett Lounge, followed by a half-hour practice session. Cost is \$8 per lesson. For more information, contact Megan Knight at [knight@its.caltech.edu](mailto:knight@its.caltech.edu).

### Tuesday, February 5

JPL Gamers Club—Meeting at noon in Building 301-227.

JPL Genealogy Club—Meeting at noon in Building 301-271.

### Wednesday, February 6

Associated Retirees of JPL/Caltech—Meeting at 10 a.m. at the Caltech Credit Union, 528 Foothill Blvd., La Cañada.

Caltech Ballroom Dance Club—A rumba class for beginners will be held at 7:30 p.m. in Caltech's Winnett Lounge, followed by a half-hour practice session. Cost for the volunteer-taught class is \$1 per lesson. For more information, contact Megan Knight at [knight@its.caltech.edu](mailto:knight@its.caltech.edu).

Risk Assessment Lecture—Dr. Michael Stamatelatos, the NASA agency manager of risk assessment and a leading expert on Probabilistic Risk Assessment, will speak from 2 to 4 p.m. in von Kármán Auditorium. His talk will be structured to appeal to both practitioners of risk assessment and project personnel who are curious about the value of applying Probabilistic Risk Assessment to assess and resolve flight project risk issues.

### Thursday, February 7

JPL Gun Club—Meeting at noon in Building 183-328.

### Friday, February 8

SamulNori Korean Drums—An ensemble of four percussionists dedicated to

preserving and performing traditional Korean music and dance will perform at 10 a.m., one-hour school performance, with an 8 p.m. full production performance. Both shows are in Caltech's Beckman Auditorium. Tickets: Morning performance is \$5; evening performance: \$29, \$25 and \$21. For more information, call (626) 395-4652.

### Saturday, February 9

Tomás Kubinek: Certified Lunatic and Master of the Impossible—The magician, clown and acrobat will present a children's show that features outrageous theatrics and surreal feats at 2 p.m. in Caltech's Beckman Auditorium. Tickets are \$10 for adults, \$5 for youth. For more information, call (626) 395-4652.

### Sunday, February 10

Chamber Music—Baritone Scott Graff will be accompanied by Lisa Sylvester in a program featuring music that centers on the theme of the pre-Lenten festival, Carnival. To be held in Caltech's Dabney Lounge. Free admission. For more information, call (626) 395-4652.

### Tuesday, February 12

Credit Union Annual Meeting—The campus' Beckman Auditorium will host, with refreshments served at 4:45 and the meeting scheduled for 5:30. All in attendance will receive a gift, and all credit union members in attendance will be eligible for a door prize at the end of the meeting.

JPL Stamp Club—Meeting at noon in Building 183-328.

### Wednesday, February 13

JPL Amateur Radio Club—Meeting at noon in Building 238-543.

JPL Toastmasters Club—Meeting at 5 p.m. Guests welcome. Call Joy Hodges at ext. 4-7041 for location.

### Friday, February 15

Classical Music—The Caltech-Occidental Concert Band will perform at 8 p.m. in Thorn Hall, Occidental College, 1600 Campus Rd., Eagle Rock. Admission is free. For more information, call the Occidental College music department at (323) 259-2785.

Travel Film—*Magic of Malaysia* will be offered at 8 p.m. in Caltech's Beckman Auditorium. Tickets are \$9 and \$7. For more information, call (626) 395-4652.

### Saturday, February 16

Chicago City Limits—This troupe that creates a theatrical experience by taking suggestions from the audience and crafting scenes on the spot will perform at 8 p.m. in Caltech's Beckman Auditorium. Tickets are \$22, \$18 and \$14. For more information, call (626) 395-4652.

## Service awards

The following JPL 4th quarter service award recipients, who have completed 20 or more years of service, were invited to attend a luncheon in their honor on Jan. 23.

45 years: David Elliott.  
35 years: Richard Coffin, William Hullinger, Margie Ingersoll, J.C. Klose, Robert Kocsis, Richard B. Miller, Andrew Zoltan.  
30 years: Eri Cohen, Terry Fisher, Claude Hildebrand Jr., Jeremy Jones, Edward Mettler, Stanley

Sander, Martin Slade III, John Stocky, Giulio Varsi.  
25 years: Brent Blaes, David Boatman, Paulette Cali-Kaviani, Shuchi Hsiao, James Ling, Constance McCaig, James Raney, Judith Ryken, Allan Sacks, Charles Yoder.  
20 years: Roger Carlson, Min-Kun Chung, Albert Kuchler, Beatrice Lathrop-Pino, Patricia Lux, Vena Pontiac, David Rochblatt, Richard Southern, Yolanda Swanson, Cynthia Williams.

## Alaska senator pays a visit



JPL Director Dr. Charles Elachi, left, discusses the Mars Program with visiting Sen. Ted Stevens (R-Alaska), standing next to Caltech President Dr. David Baltimore, right. Stevens' Jan. 17 visit was his first to the Lab. He was briefed on JPL work affecting his home state, such as monitoring the seasons in Alaska, observing topography and surface change in the state, and understanding changes in ice sheets and glaciers.



recent collaboration between JPL's Advisory Council for Women (ACW) and the Caltech Women's Center has resulted in a rewarding experience for female students as well as for those here on Lab who are helping them make their way in engineering and science.

Called the JPL Undergraduate Mentoring Program (JUMP), the effort was inspired by the Lab's desire to provide a conduit of resources to Caltech women.

"When I learned that this year's class had the largest percentage of women student ever, I thought the ACW might be interested in sponsoring an activity toward this goal," noted Dr. Diane Evans, who leads JPL's Earth Science and Technology Directorate. "It is really ACW, JPL's Minority Education Initiative, the Educational Public Outreach Office and Caltech's Women's Center's efforts that made this happen.

"I was delighted to meet the students and discover how many potential avenues we have for future interactions," Evans said. "I'm looking forward to seeing many of these students again as Summer Undergraduate Research Fellows, academic part-time and co-op students in the near term, and as post-docs, new employees, and principal investigators on JPL missions in the future."

"We have a special relationship with Caltech," said Dr. Ayanna Howard, who works in the Autonomy and Control Section and is a past member of the ACW. "Many of our JPL engineers and scientists have close working relationships with Caltech professors, our technologists employ Caltech students to perform research assignments during the summer, and we encourage Caltech post-

docs to continue their educational pursuits here on Lab. Of course, with Caltech being right in our own backyard, it just makes sense to form a unified connection."

Howard said the program's purpose is to begin a continuing mentoring relationship with Caltech undergraduate women. "We want to give them a taste of the opportunities available here on Lab," she said. "We want them to begin to understand the relationship that exists between Caltech and JPL. We would like to be their resource and help in the realization that women are doing amazing things in science and engineering."

The 20 students and two professors visited JPL in two groups—one for engineering on Jan. 14; the other, focused on science and research, came by Jan. 17.

"I felt the engineering group was impressed by technology, and very focused in their goal to see mechanical engineering stuff," Wu said. "The second group, which was more physics, astronomy, and planetary science-oriented, showed a broader curiosity and enthusiasm for the concepts of missions and research efforts."

The groups visited several JPL facilities engaged in state-of-the-art research—the Solar System Visualization Demo and Digital Animation Lab; the Nondestructive Evaluation and Advanced Actuators Lab; and the Extraterrestrial Materials Simulation Lab—and a tour of the Space Flight Operations Facility was also included.

Four JPL technologists and scientists served as guest speakers each

day during lunch, including Dr. Rhonda Morgan, an optical engineer on the StarLight mission.

"As a speaker, it was worth it to me to talk about the ambitious and challenging work that I am doing, and to share my journey, even the rocky moments," she said. "It helps the students see past the trial of the moment and be assured they can make it, even in the midst of doubt. I think I connected with several of the young women: I may help several of them refurbish a telescope and I am trying to find a summer project for another one.

"I am happy to encourage them and to mentor them where I am able," Morgan added. "I place a high value on it because of the in-

Caltech students  
get an up-close view of  
how the Lab works

# CAMPUS WOMEN ENJOY TOUR

By Mark Whalen



vestment of time and wisdom I received from my mentors."

Morgan said she found the students' enthusiasm refreshing. "I believe they learned that our dreams of the future of space exploration are very much alive and growing, and they are welcome to claim these dreams and help shape them and bring them to fruition."

Among the feedback received by organizers were indications that participants found the session "excellent," informative," and "fun." Another attendee "enjoyed the opportunity to get off campus and see people in the areas they work and are excited about." One student was happy that "we got to talk to different-aged and different-focused women."

Candace Rypisi, director of the Caltech Women's Center, said, "I think the earlier that women undergraduates have a chance to connect with research opportunities and women mentors, the more fulfilling their experience will be. I look forward to working on this project again."

Several of the students showed interest in JPL's part-time employment programs, and "we're going to see how we can match students with the Lab," Wu said. "One student is also interested in the astronaut program and we have a couple of women from JPL who went through the program, so we're going to hook them up."

"A lot of hard work and coordination by ACW members went into this and I thought it was totally worth it," Wu added. "It was great seeing the students have an interest in the kinds of things the Lab is doing.

"We would like to continue different events throughout the year with JUMP, and hope the program will become an annual event," she said.

Dr. Jackie Green shows  
students JPL's Extraterrestrial  
Materials Simulation Lab.



Photo by Dutch Slager / JPL Photolab

JPL and The Charles Stark Draper Laboratory have agreed to develop a mutually beneficial collaboration to better support NASA and other government agencies.

JPL Director Dr. Charles Elachi and Draper Laboratory President and Chief Executive Officer Vincent Vitto signed a formal agreement on Jan. 10, and a progress briefing for the developing collaborative relationship was attended by JPL senior management.

Draper Laboratory, based in Cambridge, Mass. with offices in Arlington, Va., is an independent, not-for-profit corporation that has a long history serving the national interest. Draper Laboratory's support to NASA has been

primarily connected with the human exploration of space in support of the Johnson Space Center. Draper has also supported JPL in the past and is currently involved in the Mars Program supporting studies related to autonomous rendezvous and sample capture for Mars sample return missions.

The contract with JPL was signed to streamline the process of getting Draper Laboratory on contract for more efforts for which they are uniquely qualified. In the past, these efforts had to be justified in separate procurements; now, appropriate work can be added to the contract through a simple work order process.

## JPL signs agreement with Draper Laboratory

Vincent Vitto, left, president and chief executive officer of Charles Stark Draper Laboratory, joins JPL Director Dr. Charles Elachi in signing collaborative agreement.

# Safety reminder: keep fire doors closed

As the sign (inset) indicates, this door, along with all other fire doors, should remain closed.



JPL's Occupational Safety Office notes that staff may be familiar with the term "Fire Door," but some of us may not know what a fire door is or what they look like.

Fire doors are designed to prevent fire and smoke from freely spreading within a building. By looking at a door, one cannot easily determine if it is a regular door or a fire door. Fire doors are unique in where they are located, how difficult they are to open and in their labeling or signage on the door.

Fire doors are in walls separating work areas from main corridors leading to the outside of a building, and are generally in stairwells as well. They are of substantial construction and are heavy—one has to exert more effort to open them than a normal door.

## Letters

I would like to thank all that helped in the celebration of my retirement. Your calls, cards and best wishes are cherished. I will miss you all and have so enjoyed meeting and working with you through the years. The party at Descanso was absolutely beautiful and your Liardro gift is greatly cherished. A special thanks to all my co-workers in travel accounting for putting together such a fantastic event. Looking forward to continuing your friendships through my retirement years. Best wishes and God bless you all.

Joan Taylor

I would like to thank my friends and co-workers for the kind words and condolences following the death of my Mother. Thanks also for the lovely plant sent by the ERC.

Carolyn Gil

## Classifieds

### For Sale

BAR STOOLS, 3, white, metal, 30 in., 35\$/each; STOVE, gold, GE, electric, w/self cleaning oven, \$125. 626/445-1013.

BED, queen sz., firm matr., box spring & metal frame, 2 yrs old but like brand new, you must pick up in Westwood, \$95. 310/478-3454.

BEDS, matching twin, 4-post frames, solid mahogany, Ethan Allen, w/1 Simmons matr. & bed spring incl., \$1,000/both or \$650/ea. 957-4928.

BEDFRAMES, 1 double sz. w/brass-plated head frame, \$35; 1 single sz., \$10. 626/799-7929.

BEDROOM SET, double bed, dresser, chest, 2 night stands, \$275; DESK, student, \$25; COMPUTER DESK, \$20; DAY BED, \$20. 248-9418.

BIKES (4), children's, \$15/ea.; FIREPLACE SCREEN, black, + access., \$50/all. 626/357-8210.

BOOTS, mountaineering, Lowe, sz. 12, \$20; CRAMPONS & INSULATORS, \$20. 626/794-2431.

CAR STEREO, Blaupunkt, in dash, 50 watt, cd/am/fm receiver, detachable face, Laguna CD 43, \$65; SHEVLING, for CDs or videos, 52" high x 11" wide, 7 shelves, \$25. 957-4928.

CELL PHONE, Motorola TimePort, w/cables & software to link to laptop/desktop/palm device, wireless computing via Sprint PCS network, includes phone, battery, charger, great belt clip, all in gd. cond., orig. \$300, sell \$129. 352-0075.

CHAIRS, antique oak, black w/black leather seat, orig. finish, din. room set of 4, one master, \$65/ea. j.snyder@stanfordalumni.org.

COAT, women's trench, blk leather, belted, sz. 12/ 14, zip-out insulated lining, worn very few times, \$60/obo; RAINCOAT, women's, powder blue, cotton/polyester, belted, sz. 12/14, zip-out insul. lining, seldom worn, \$35/obo. 780-0470.

COMPUTER, Apple G3/ 233MHz, 32MB, 4 gig h/d, 24 x CD drive, OS 8.5, Apple 15" monitor, \$425/obo; MODEM, PC, US Robotics 56K external, brand new, still in box, shrink wrap opened, \$25/obo. 626/229-9953.

COMPUTER DESK, Pedestal, 65" x 30" x 21", oak finish, place for CPU, keyboard and printer/scanner, end cabinets have shelves w/doors, \$60; SATELLITE DISH, RCA, complete w/receiver & remote, \$25; FIREPLACE SCREEN, brass w/glass doors, \$40. 243-8255.

COMPUTER, notebook, Sony VAIO PCG-505FX, lightwt, heavy on features & performance, < 1" thin; < 3 lbs., 266 MHz, 4.3 GB, 64 MB, 10.4" SVGA, Win98, CD-ROM drive, V.90 modem, port replicator, external floppy, Sony slip case, lithium-ion batt., \$750. 687-8627, cell, Alberto.

COUCH, Italian leather, cognac, \$295. 626/844-9228.

DESK, oak, roll top, 54" l, exc. cond., \$450. 951-3653.

DRESSES, prom/evening, 2, new, designer, one by ABS, size 12, price tag \$329, sell for \$200; one by Saché, size 10, price tag \$268, sell for \$165. 241-8208, eve, Irena.

ELECTRICAL TEST EQUIPMENT: EICO 666 briefcase vacuum tube tester & all adapters incl. TV picture tube; EICO 950b resistance-capacitance comparator bridge; EICO 385 color bar/pattern generator; EICO 955 capacitor checker; Knight flyback checker; Knight kg-650 vacuum tube voltmeter; Heathkit v-7a vacuum tube voltmeter w/high voltage probe, instrum. manuals incl. for most, buy all or some, negotiable, can bring to JPL. 352-7892, Don.

GARDEN HOSE HOLDERS, new, black iron-work, holds up to 100 ft. hose, \$60/obo, alum., new, holds up to 75 ft. hose, \$50/obo; PLANT, red banana, in 5-gal plastic pot, \$15/obo; CERAMIC BOWL, gray, 2-ft dia., 10" deep,

\$25/obo. 626/791-6101.

HEADBOARD, curved dark wood, dbl.-bed frame, matr. & springs, \$100; PIANO, Spinet, & bench, \$300; DESK, solid oak rollout, \$200; CHAIRS (2), blue or white wicker, \$5; chairs as is, rest is like new. 980-1638.

HEALTH AIDS: aluminum walker, \$60/obo; aluminum crutches, \$30/obo; bedside commode, \$50/obo; quad cane, \$30/obo; alum. walker, with left arm attachment, \$75/obo. 790-6060.

KEYBOARD, Yamaha PSS-790, full function, MIDI sequencer, auto. rhythms & many sounds built in; 61 mini-keys make it very portable, use internal speakers or via headphone jack, batt. or AC pwr., 8 prog.-mable drum-sound pads makes it more fun, vector synth joystick controller for on-the-fly sound morphing, orig. \$189, sell \$35. 352-0075.

METAL LATHE, Craftsman Atlas, 6" swing, 54" bld, exc. cond., \$975. 626/797-1673.

MOVING SALE, see http://home.earthlink.net/~boudin.

PHONE ACCESSORIES: for Nokia 6100, cradle charger for phone + extra battery, \$15; slim battery \$20; vibrating battery, \$15; handsfree micro/earphone \$5, or \$45/all; ZIP DRIVE, 100MB, USB Mac/PC, \$50. 626/644-6249.

PHOTOGRAPHIC TRIPOD, heavy duty Bogen, for lg. format cameras, model 3050 w/3047 head, 14.5 lbs, has elevation crank & extends to over 6', bubble level, the industry std. of metal tripods for lg. format, exc. cond., \$125. 909/624-6970.

REFRIGERATOR, 16 cu. ft., top frzr., 7 yrs old, exc. cond., white, \$125/obo. 626/446-2989.

REFRIGERATORS, G.E., 1 beige, 17 yrs. old, side by side, gd. cond., \$100, 1 white, 15 yrs. old, fair cond., top freezer, \$100; TABLE, din. rm, w/leaf, cherry wood tops, black legs, 4 chairs, gd cond., \$150; SOFA/SLEEPER, makes into qn-sz. bed, abstract black, blue & mauve design, good cond., \$300. 626/357-8210.

SATELLITE DISH SYST., Direct TV, incl. dish, receiver & magnetic card, \$50. 626/797-5488.

SCUBA GEAR, BCD, exc. cond., \$50; TANK, needs hydro inspection, various other gear, best offer. 957-3296, Wendy.

SKIS, 1 pr. ladies, x-country, poles & Alfa shoes, used once; 1 pr. downhill, 180 cm, poles, boots; 1 pr. mountaineering, 1940s vintage, 76" (225 cm), hickory w/metal edges & cable bindings. 249-8524.

SOFA BED, twin size, 58" l, neutral colors, exc. cond., \$225. 951-3653.

TAPE DECK, Sony TC-W250 dual cass. w/Dolby, black, all new belts, \$40. 626/390-8585.

VCRs, Beta HiFi, Toshiba, 1 works, 1 needs belts, \$75/both; TAPE DECKS, Sony TC-355, reel-to-reel, 1 works, 1 needs record head but gd for parts, both for \$100; RECORDING TAPE, on 7.5" reels, in boxes, 12 new Sony PR-150, 3 new Scotch 200, 12 used misc. Scotch, \$30/all. 790-5461.

VIDEO GAME, Playstation console, w/15 games, 2 orig. dual shock controllers, 1 memory card & 1 demo-2000 Jampack. 957-2852.

VIDEOTAPE, Disney's Little Mermaid, special ed., new, sealed, fully restored w/THX sound, \$25; other brand-new Disney videos also avail. 562/420-2313.

VIDEOTAPES: Tai Chi, 2 hours, like new, \$10; IMAX space presentation, "The Dream is Alive," narrated by Walter Cronkite, never used, brand new, \$10. 626/577-1918.

WASHING MACHINE, 2 yrs. old; DRYER, gas, 1 yr old, exc. cond., sell as a set \$600; DISH-WASHER, good cond., \$100. 249-4572.

### Vehicles/Accessories

'83 BMW 633 CSI, black, orig. paint, cosmetically clean inside/out, well maintained, gd. records, \$5K/obo over retail Bluebook. 626/836-3931.

'96 DODGE Neon, blue, 2 dr., AM/FM, cassette, CD w/multi changer and remote, 130K mi., \$3,500/obo. 909/596-8117.

'98 FORD Explorer Eddie Bauer, blue/tan, V6SOHC, 4 dr., loaded w/extras, new tires, new front brakes, Yakima roof rack w/extras, warranty, exc. cond., \$13,500. 626/798-8163, eve.

'97 FORD Taurus GL sedan, 83K mi., V6, 4 dr., auto trans, a/c, pwr. ABS brakes/steering/drivers seat/window/doorlocks, tilt whl, cruise contr., am/fm stereo/cass., metallic silver ext., gray int., current registr., \$5,495. 626/798-1765.

'95 FORD Clubwagon, 5.7L, 167K mi., 4 spd. auto w/overdrive, loaded, tow pkg., meticulously serviced, very clean, \$8,000/obo. 909/593-8950.

'95 FORD Windstar LX, 3.8 L, V6, loaded, 7 pass., dual a/c, quad seats, p/b, p/w, PDL, keyless entry/w anti-theft, anti-lock brakes, privacy glass, 2 tone, auto day-nit. mirror, new tires & a/c, 76K mi., \$8,900. 714/750-5267, Lee.

'92 FORD F150 truck, 67K mi., orig. owner, longbed w/key lock matching camper shell, exc. cond., 5 spd., V8, a/c, AM/FM stereo cass., 4:10 rear axle for towing, white exterior, gray interior, bench seat, no pets, no smoking, very clean, recent scheduled maint., current registr. w/new smog certifi., \$6,495. 626/798-1765.

'85 FORD Econoline van 350, side door wheel-chair, hydraulic lift, new battery, new tires, 70K orig. mi., seats 5 plus driver plus wheel-chair, removable table, \$2,500/obo. 790-6060.

'92 HONDA Accord EX, sedan, 4 dr., 106K mi., gd. cond., white w/blue int., auto., 4 cyl. 2.2 ltr., front whl dr., a/c, p/s, p/w, p/dl, cruise

cont., ABS, tilt whl., sun/moon roof, am/fm stereo/cassette, anti-theft, gd. tires, \$6,000. 626/296-9073, Patti.

'96 JEEP Cherokee, about 60K mi., 1 owner, A/C, power alarm/locks/windows/steering, cruise cont., new brakes/tires, photos at www.begrific.com/jeep, \$6,500/obo. 323/262-5561.

'85 MERCEDES MBZ 300D, turbo, diesel, silver-blue, automatic, 200K mi., runs great, needs body work, \$2,850. 626/355-9733, Joe.

'93 MERCURY Sable LS sedan, 4 dr., V6, 3.8L, auto trans., 44,000 mi., mocha frost, gd. cond., A/C, pwr. steering/windows/door locks & antenna, tilt wheel, cruise cont., am/fm/stereo cass., 10 CD changer/stacker, dual front air-bags, ABS, 4 whl., leather seats & whl., dual pwr. seats, alloy whls., digital instr. panel, keyless entry, rear window defroster; \$3,795. 790-4379.

'92 MERCURY Tracer, 4-dr. auto, a/c, p/s, am/fm cass., 81K mi, vg cond., \$2,200. 626/683-8855.

'89 MERCURY Sable LS sedan, lt. blue w/dk blue leather, 3.8L., V6, 99K mi., orig. owner, alw. garaged, a/c, pwr. steering/windows/doorlocks/ antenna, tilt whl., AM/FM stereo cass., dual pwr. seats, alloy whls., keyless entry, rebuilt auto trans, newer tires, all records, \$2,400. 790-5461.

'94 NISSAN Sentra E, 2 dr., 70K mi., slate color, steering, am/fm, stereo with CD, sun roof, ABS brakes, alloy wheels, 90K mi., \$3,600. 626/296-2998.

'87 NISSAN Sentra, 2 dr., h/b, only 64K mi., auto trans., exc. a/c, red, anti-theft device/ starter disabler, clean, new tires, radio, stereo cass. player, \$3,100/obo. 626/449-8224.

'94 SATURN SC 2, coupe, 2D, manual, a/c, pwr. steering, am/fm, stereo with CD, sun roof, ABS brakes, alloy wheels, 90K mi., \$3,600. 626/296-2998.

'97 SIERRA TRAILER LITE, Forest River, 17 ft., fully self-contained, great for weekenders, orig. owner, no pets, no smoking, exc. cond., kept under carport, slps. 4, full ba., microwave, radio cass. deck & speakers, forced air furnace, a/c., Dometic refrig., 3-burner stove, oven, dual kitch. sinks, dual propane tanks, awning, battery, incl. hitch & spare tire, \$6,995. 626/798-1765.

'94 SUBARU Legacy L wagon, a/w/d, 5 spd. manual, ABS, cruise, air, fm stereo/cass., roof rack, 95K mi., new clutch, one owner, all records, good cond., \$5,500. 626/797-6737.

'88 SUBARU DL wagon, 2 owners, all records, 5-sp. manual, a/c, 98K mi., \$1,600. 626/797-6737.

'93 TOYOTA Camry LE, 4 dr., auto, air, full pwr., cass, tilt, exc. cond., \$6,500. 805/796-7212.

'93 TOYOTA Tercel, 2 dr., 37K mi., a/c, 4-spd. manual trans., exc. cond., airbags, \$5,500/obo. 626/794-4921 or 323/393-2831, Bert.

'90 TOYOTA Corolla DX sedan, 4 dr., white ext., blue int., gd. cond., 175K mi., a/c, am/fm cass., prem. sound, new eng., new trans., runs great, dependable, \$2,700. 626/303-2808, David.

'86 TOYOTA Celica GTS, 1 owner, well maintained, 142K mi., \$3,100. 790-8007.

WHEELS, set of 5 rims, ultra wheel type 49, 15" x 8" w/5 lugs, swirl design; machined w/black accents, good cond., new lugs, great look for SUV or truck, \$550 new, \$300/obo. 626/398-0539.

'01 VOLKSWAGEN Passat GLS, V6, auto, drk. blue ext./gray int., leather, only 7K mi., 10 yr, 100K mi. warr. inc., must sell, moving, \$27.5K/obo. 626/836-9240 or patsward@yahoo.com.

'83 VOLVO DL wagon, 5 dr., 150K mi., auto, maroon, a/c, p/s, cruise cont., am/fm, stereo/ cass., roof rack, gd. cond., \$1,700. 626/794-2431.

### Wanted

ANTIQUUE LINENS, white on white, hand embroidered, preferably monogrammed (any monogram), must be in exc. cond. 980-1638.

CONTRACTOR RECOMMENDATION, planning a large remodel to my home; need gd and honest contractors. 626/398-0810, Connie.

CAR, desperately seeking used or wrecked to buy or rent for 6 months. 249-0909.

GALLERY GUIDE: "Art in America," recent copies; VIEW CAMERA FILM HOLDERS for 4 x 5, in exc. or vg cond. 626/584-0660.

HOUSING, 2 bd. temp., for April-May for 2 responsible, clean women, sublet or rooms to rent in west/central L.A. betw. Beverly Hills / Culver City. laurak1@mindspring.com. 303/449-3323.

SPACE INFORMATION/memorabilia from U.S. & other countries, past & present. 790-8523, Marc Rayman.

TUTOR, for SAT II chemistry. 626/793-3228, Carolyn.

VOLLEYBALL PLAYERS, coed, no beginners please, Tuesday nights 8-10:00 at Eagle Rock High School, \$3/night. 956-1744, Barbara.

### Lost & Found

LOST: Bolle sunglasses, lost at or near 167 cafeteria or Bldg. 264, wrap-around style, black frame, blue lenses. 3-4050, Wendy.

### For Rent

BURBANK, 4 bd., 2 ba., foothills above Kenneth Rd., new carpet/paint/kitch. appliances, huge backyd., pets ok, close to schools, very

quiet neighb'h'd, temp ok. 843-7180.

GLENDAL / VERDUGO WOODLANDS, studio cottage in garden-like setting; perfect for a Monday to Friday in-town work-week haven; studio is furnished, w/kitchenette, fireplace, heat/ac, and washer/dryer; \$625. 244-3343.

PASADENA, room in 4 bd., 2 ba., apt, shared kitch., A/C, parking, laundry, near PCC & Caltech, great for student or co-op, \$495. 626/351-9641.

PASADENA condo, 2 bd., 2 ba., fully secured building and parking, central air and heat, large balcony, walking distance to S. Lake and Old Town, \$1,300. 626/826-9868.

PASADENA, spacious 2-story condo, 3 bd., 2.5 ba., prestigious community, beaut. inter., bright kitch., prof. landscape, ctrl. air & heat, close to shop., cozy LR w/FP, end unit, frml DR, hdwd. flrs., immac. cond., close to schls., \$1,750. 626/396-9024.

PASADENA, northeast area, 3-bd., 2-ba. house, 15 min./JPL, fireplace, cathedral ceilings, w/d hookups, cent. air/heat, 2-car gar, quiet neighborhood, no pets, 1-year lease, avail. 3/1, \$1,450 includes water/trash. 626/961-2690.

PASADENA, 1 bd., 1 ba., apt, newly renovated, near PCC and Caltech, parking, A/C, laundry, \$775 unfurn. or \$850 furn. 626/351-9641.

PASADENA, 1 bd. apt., upstairs, partially furn., stove and refrigerator, util. included, \$800 plus \$800 security. 626/798-0069.

SOUTH PASADENA, deluxe 1 + bedrm manager's unit apt, fully furn., 1718 Huntington Drive betw. Marengo and Milan, nice neighb'h'd, double carport, laundry, non-smoker, no pets, you pay electric & phone, \$1,000, \$100 for each add'l person. 626/792-9053, Ray or Marilyn.

SOUTH PASADENA, studio apt, fully furn., 1718 Huntington Dr betw. Marengo and Milan Sts, util. pd, car space, laundry, non smoker, no pets, \$750. 626/792-9053, Marilyn or Ray.

### Real Estate

ANAHEIM, deeded time share, 1 bd., sleeps 4, 1 week/yr. red, RCA exchange peacock suite, near Disneyland, \$10,500. 952-3008, after 6 p.m., Helen.

HELENDALE, Calif., vacation club membership, 2-bd. condo, 4 wks in resort community w/2 lakes + many amenities, free golf all year at PGA-rated course w/driving range & putting green, less than 2 hrs. fr. Pas., exchange privi-leges w/over 3,000 affiliate domestic & int'l resorts, illness forces sale, \$22,000. 805/967-7725.

PASADENA, 3 bd., 2 ba., 1,521 sq. ft., a/c, 7,500 sq. ft. lot, h/w floors, fireplace, private setting, 5 min. from JPL, near Rose Bowl, \$395K. 626/796-3479.

SAN DIEGO, Riviera Oaks, deeded time share, 1 bd., slps 4, 1week/yr., red, international exchange \$14,500. 952-3008, after 6 p.m., Helen.

SHOW LOW, Ariz., 3 bd. house, .43 acres w/ponderosa pines, nat'l gas, sewer in town subdivision, great investment property, house nds. help. \$35K/obo. randall.mielke@fijivillage.com.

WILLIAMS, Ariz. area, (10 mi. away), 43 acres and 2-rm house, seasonal pond, wildlife everywhere, house is on top of cliff w/great views, 4-mi. dirt access year round, great investment, \$60,000/obo. randall.mielke@fijivillage.com.

### Vacation Rentals

BIG BEAR LAKEFRONT, luxury townhome, 2 decks, tennis, pool/spa, beautiful master bd. suite, sleeps 6. 949/786-6548.

CAMBRIA, ocean front house, sleeps up to 4, excellent view. 248-8853.

HAWAII, Kona, ocean front on Keauhou Bay, house & guest house comfortably slp. 6, 3 bd., 2 ba., rustic, relaxing & beautiful, swimming, snorkeling, fishing, spectacular view, nr. rest-a-ur., golf and other attractions. 626/584-9632.

HAWAII, Maui condo, NW coast, ocean front view, 25 ft. fr. surf, 1 bd. w/loft, compl. furn. phone, color TV, VCR, microwave, d/w, pool, priv. lanai, slps 4, laundry fac., 4/15-12/14 \$105/ nite/2, 12/15-4-14 \$120/nite/2, \$15/nite/add'l person. 949/348-8047, jackandrandy@cox.net.

MAMMOTH, Courchevel, fully equipped unit, 2 bd., 2 ba., sleeps 6, a short walk to Canyon Lodge and ski lifts. 661/255-7958.

MAMMOTH, Snowcreek, 2 bd., 2 ba., + loft, slps 6-8, fully eq'p'd kitch. w/microwave, D/W, cable TV, VCR, phone, balcony w/mtn. view, Jacz., sauna, streams, fishponds, close to Mammoth Creek, JPL discount. 626/798-9222 or 626/794-0455.

OCEANSIDE, on the sand, charming 1-bd. condo, panoramic view, walk to pier & harbor, pool/spa, game rm., sleeps 4. 949/786-6548.

OCEANSIDE condo, fully furn., 2 bd., 2 ba., fr-plc., full kitch.; quiet, relaxing, beautiful beach-side setting; w/BBQ, pool, spa, game rm, great ocean view; easy walk to pier & restaurants; sleeps 6, avail. weekly or monthly. 909/981-7492 or dhauge@yahoo.com, Darlene.

PACIFIC GROVE hse, 3 bd., 2 ba., f/p, cable tv/vcr, stereo/CD, well eqpd. kit w/microww, beaut. furn, close to golf, bches, 17 Mile Dr., Aquar., Cannery Row, JPL discount. 626/441-3265.

ROSARITO BEACH condo. 2 bd., 2 ba., ocean view, pool, tennis, short walk to beach on priv. rd., 18-hole golf course 6 mi. away, priv. secure parking. 626/794-3906.